IN THE CLAIMS

1.   (Currently Amended) A method ~~for managing data transmissions at a local network device communicating with a linked network device over a network, wherein each network device is capable of transmitting data at different speeds~~, comprising:

~~initiating an operation to change a current transmission speed at which data is transmitted between the local and linked network devices in response to a speed change event;~~

selectively determining a new transmission speed different from ~~the~~ a current transmission speed between a local network device and a linked network device in response to a speed change event;

~~setting a register in the local network device to indicate the new transmission speed;~~ and

transmitting a speed change request and the new transmission speed to the linked network device to ~~cause~~ request the local and linked network devices to communicate at the new transmission speed, wherein the ~~transmission~~ transmitting occurs while maintaining ~~without terminating~~ a linked exchange ~~occurring~~ between the local and linked network devices.

2.   (Original) The method of claim 1, wherein transmitting the speed change request comprises including the speed change request and the new transmission speed in a data packet being transmitted to the linked network device at the current transmission speed.

3.   (Original) The method of claim 1, wherein transmitting the speed change request comprises including the speed change request and the new transmission speed in a preamble packet that is transmitted at the beginning of data packets or in an idle transmission between packets to synchronize data transmissions at the current transmission speed.

4.   (Original) The method of claim 1, wherein the linked network device in response to the speed change request returns positive acknowledgment to the local network device if the linked network device is capable of transmitting at the new transmission speed.

5.   (Original) The method of claim 4, wherein the local and linked network devices continue to transmit data at the current transmission speed until the linked network device returns a positive acknowledgment.

6.   (Original) The method of claim 1, wherein the linked network device in response to the speed change request returns negative acknowledgment to the local network device if the linked network device is not capable of transmitting at the new transmission speed.

7.   (Original) The method of claim 1, wherein the operation to change the transmission speed comprises an operation to either increase the transmission speed if the local network device is capable of transmitting at a transmission speed that is higher than the current transmission speed or decrease the transmission speed if the local network device is capable of transmitting at a transmission speed that is lower than the current transmission speed.

8.   (Original) The method of claim 1, further comprising:
maintaining transmission information indicating transmission capabilities of the linked network device, wherein the determined new transmission speed is a new transmission speed that the transmission information indicates that the linked network device is capable of performing.

9.   (Currently Amended) The method of claim 1, further comprising setting a register in the local network device to indicate the new transmission speed, wherein a device driver used to communicate with the local network

device determines the new transmission speed, wherein setting the ~~registers~~ register in the local network device comprises the device driver changing advertised capabilities of the local network device indicated in the ~~registers~~ register, and wherein transmitting the speed change request comprises restarting an auto-negotiation process that selects a common transmission speed based on the changed advertised capabilities in the local network device.

10. (Original) The method of claim 9, wherein the determined new transmission speed is higher than the current transmission speed, and wherein changing the advertised capabilities comprises removing any transmission speeds indicated in the advertised capabilities of the local network device that are less than the determined new transmission speed.

11. (Original) The method of claim 9, wherein the determined new transmission speed is lower than the current transmission speed, and wherein changing the advertised capabilities comprises removing any transmission speeds indicated in the advertised capabilities of the local network device that are higher than the determined new transmission speed.

12. (Original) The method of claim 1, wherein the speed change event comprises an application program determining an anticipated increase of data transmissions through the local network device, and wherein the new transmission speed is higher than the current transmission speed.

13. (Currently Amended) The method of claim 1, wherein the speed change event is based on ~~comprises detecting~~ a detected change in network traffic at the local network device.

14. (Currently Amended) A network device ~~capable of functioning as a local network device or linked network device in a network~~, comprising:
    ~~registers;~~

~~a network protocol including code to cause the network device, when operating as the local network device, to perform:~~

(i) <u>logic to initiate</u> ~~initiating~~ an operation to change a current transmission speed at which data is transmitted to <u>a</u> ~~the~~ linked network device in response to a speed change event;

(ii) <u>logic to determine</u> ~~determining~~ a new transmission speed different from ~~the~~ <u>a</u> current transmission speed <u>between the network device and the linked network device</u>;

~~(iii) setting one register to indicate the new transmission speed;~~ and

[[(iv)]] <u>(iii) logic to transmit</u> ~~transmitting~~ a speed change request and the new transmission speed to the linked network device to ~~cause~~ <u>request</u> the linked network device to communicate at the new transmission speed, wherein the transmission occurs <u>while maintaining</u> ~~without terminating~~ a linked exchange ~~occurring~~ between the ~~local~~ network device and <u>the</u> linked network <u>device</u> ~~devices~~.

15.   (Currently Amended) The network device of claim 14, ~~wherein the code causes the network device, when operating as the linked network device, to perform~~ <u>wherein the linked network device</u> in response to the speed change request, ~~returning~~ <u>returns</u> positive acknowledgment to the ~~local~~ network device if the linked network device is capable of transmitting at the new transmission speed.

16.   (Currently Amended) The network device of claim 15, wherein the <u>network device</u> ~~local~~ and <u>the</u> linked network ~~devices~~ <u>device</u> continue to transmit data at the current transmission speed until the linked network device returns a positive acknowledgment<u>.</u>

17.   (Currently Amended) The network device of claim 14, ~~wherein the code causes the network device, when operating as the linked network device, to further perform~~ <u>wherein the linked network device</u> in response to the speed

change request, ~~returning~~ returns negative acknowledgment to the ~~local~~ network device if the linked network device is not capable of transmitting at the new transmission speed.

18.   (Currently Amended) The network device of claim 14, ~~wherein the code causes the network device, when operating as the local network device, to further perform:~~
further comprising logic to increase the transmission speed if the ~~local~~ network device is capable of transmitting at a transmission speed that is higher than the current transmission speed or decrease the transmission speed if the ~~local~~ network device is capable of transmitting at a transmission speed that is lower than the current transmission speed.

19.   (Currently Amended) The network device of claim 14, ~~wherein the code causes the network device, when operating as the local network device, to further perform:~~
further comprising logic to maintain ~~maintaining~~ transmission information indicating transmission capabilities of the linked network device, wherein the determined new transmission speed is a new transmission speed that the transmission information indicates that the linked network device is capable of performing.

20.   (Currently Amended) The network device of claim 14, wherein the speed change event is based on ~~comprises detecting~~ a detected change in network traffic at the ~~local~~ network device.

21.   (Currently Amended) A computer system capable of communicating over a network with a device including a linked network device, comprising:
    a processing unit;
    a ~~data~~ storage device;

a storage controller a storage controller to manage managing Input/Output (I/O) access to the data storage device;

a network device capable of receiving data from the processing unit and communicating with the linked network device over the network, the network device comprising:

(i) registers;

(ii) a network protocol including code to cause the network device to perform:

(a) logic to initiate initiating an operation to change a current transmission speed at which data is transmitted to the linked network device in response to a speed change event;

(b) logic to determine determining a new transmission speed different from the current transmission speed;

(c) setting one register to indicate the new transmission speed; and

[[(d)]] (c) logic to transmit transmitting a speed change request and the new transmission speed to the linked network device to cause request the linked network device to communicate at the new transmission speed, wherein the transmission occurs while maintaining without terminating a linked exchange occurring between the local network device and the linked network device devices.

22.   (Currently Amended) The computer system of claim 21, wherein the network device further comprises comprising:

logic to set a register to indicate the new transmission speed and wherein the computer system further comprises a device driver used logic to communicate with the local network device to determine the new transmission speed, wherein the logic to set setting the register registers in the local network device comprises the logic to change device driver changing advertised capabilities of the local network device indicated in the registers register, and wherein the logic to transmit transmitting the speed change request comprises logic to restart restarting an auto-negotiation process that selects a common

transmission speed based on the changed advertised capabilities in the ~~local~~ network device.

23. (Currently Amended) An article of manufacture for managing data transmissions at a local network device communicating with a linked network device over a network, ~~wherein each network device is capable of transmitting data at different speeds,~~ and wherein the article of manufacture includes code capable of causing operations in the <u>local</u> network device ~~functioning as a linked or local network device~~, the operations comprising:

~~initiating an operation to change a current transmission speed at which data is transmitted between the local and linked network devices in response to a speed change event;~~

determining a new transmission speed different from the current transmission speed;

~~setting a register in the local network device to indicate the new transmission speed;~~ and

transmitting a speed change request and the new transmission speed to the linked network device to ~~cause~~ <u>request</u> the local and linked network devices to communicate at the new transmission speed, wherein the ~~transmission~~ <u>transmitting</u> occurs <u>while maintaining</u> ~~without terminating~~ a linked exchange ~~occurring~~ between the local and linked network devices.

24. (Currently Amended) The article of manufacture of claim 23, wherein the code causes the ~~network device operating as the~~ local network device to include the speed change request and the new transmission speed in a data packet being transmitted to the linked network device at the current transmission speed.

25. (Currently Amended) The article of manufacture of claim 23, wherein the code causes the ~~network device operating as the~~ local network device to include the speed change request and the new transmission speed in a

preamble packet that is transmitted <u>to the linked network device</u> at the beginning of data packets or in an idle transmission between packets to synchronize data transmissions at the current transmission speed.

26.   (Currently Amended) The article of manufacture of claim 23, wherein ~~the code causes~~ ~~the network device operating as~~ the linked network device <u>is</u> to return, in response to the speed change request, positive acknowledgment to the local network device if the linked network device is capable of transmitting at the new transmission speed.

27.   (Currently Amended) The article of manufacture of claim 26, wherein the code causes the ~~network device operating as the~~ local and linked network devices to continue to transmit data at the current transmission speed until the linked network device returns a positive acknowledgment.

28.   (Currently Amended) The article of manufacture of claim 23, wherein ~~the code causes~~ ~~the network device operating as~~ the linked network device [[,]] <u>is</u> to return negative acknowledgment to the local network device, in response to the speed change request, if the linked network device is not capable of transmitting at the new transmission speed.

29.   (Currently Amended) The article of manufacture of claim 23, wherein the code causes ~~the network device operating as~~ the local network device to either increase the transmission speed if the local network device is capable of transmitting at a transmission speed that is higher than the current transmission speed or decrease the transmission speed if the local network device is capable of transmitting at a transmission speed that is lower than the current transmission speed.

30.   (Currently Amended) The article of manufacture of claim 23, wherein the code causes ~~the network device operating as~~ the local network device to:

maintain transmission information indicating transmission capabilities of the linked network device, wherein the determined new transmission speed is a new transmission speed that the transmission information indicates that the linked network device is capable of performing.

31.   (Currently Amended) The article of manufacture of claim 23, ~~wherein the code~~ further comprising code capable of causing the local network device to set a register in the local network device to indicate the new transmission speed and wherein the code ~~causing the network device operating as the local network device~~ comprises a device driver to communicate with the local network device to determine the new transmission speed, wherein ~~setting~~ to set the ~~registers~~ register in the local network device comprises the device driver changing advertised capabilities of the local network device indicated in the ~~registers~~ register, and wherein transmitting the speed change request comprises restarting an auto-negotiation process that selects a common transmission speed based on the changed advertised capabilities in the local network device.

32.   (Original) The article of manufacture of claim 31, wherein the determined new transmission speed is higher than the current transmission speed, and wherein changing the advertised capabilities comprises removing any transmission speeds indicated in the advertised capabilities of the local network device that are less than the determined new transmission speed.

33.   (Original) The article of manufacture of claim 31, wherein the determined new transmission speed is lower than the current transmission speed, and wherein changing the advertised capabilities comprises removing any transmission speeds indicated in the advertised capabilities of the local network device that are higher than the determined new transmission speed.

34.   (Original) The article of manufacture of claim 23, wherein the speed change event comprises an application program determining an anticipated increase of data transmissions through the local network device, and wherein the new transmission speed is higher than the current transmission speed.

35.   (Currently Amended) The article of manufacture of claim 23, wherein the speed change event comprises detecting a change in network traffic at the local network ~~devie~~ device.

36.   (New) The method of claim 1, wherein the speed change event is based on a change in desired power consumption.

37.   (New) The method of claim 1, wherein the speed change event is based on a detected change in network conditions.

38.   (New) The method of claim 1, wherein the local and linked network devices interact based on the speed change request at the current transmission speed.

39.   (New) The network device of claim 14, wherein the speed change event is based on a change in desired power consumption.

40.   (New) The network device of claim 14, wherein the speed change event is based on a detected change in network conditions.

41.   (New) The network device of claim 14, wherein the network device and the linked network device interact based on the speed change request at the current transmission speed.

42.   (New) The computer system of claim 21, wherein the speed change event is based on a change in desired power consumption.

43.   (New) The computer system of claim 21, wherein the speed change event is based on a detected change in network conditions.

44.   (New) The computer system of claim 21, wherein the network device and the linked network device interact based on the speed change request at the current transmission speed.

45.   (New) The article of manufacture of claim 23, wherein the speed change event is based on a change in desired power consumption.

46.   (New) The article of manufacture of claim 23, wherein the speed change event is based on a detected change in network conditions.

47.   (New) The article of manufacture of claim 23, wherein the local and linked network devices interact based on the speed change request at the current transmission speed.

48.   (New) A system comprising:
a linked device; and
a local device comprising:

logic to initiate an operation to change a current transmission speed at which data is transmitted to the linked device in response to a speed change event,

logic to determine a new transmission speed different from a current transmission speed between the local device and the linked device, and

logic to transmit a speed change request and the new transmission speed to the linked device to request the linked device to communicate at the new transmission speed, wherein the transmission occurs while maintaining a linked exchange between the local device and the linked device.

49.   (New) The system of claim 48, wherein the local and linked network devices interact based on the speed change request at the current transmission speed.

50.   (New) The system of claim 48, wherein the transmission occurs at the current transmission speed.

51.   (New) The system of claim 48, wherein the speed change event is based on a change in desired power consumption.

52.   (New) The system of claim 48, wherein the speed change event is based on a detected change in network conditions.